

WE CLAIM

1. A printing mechanism that comprises
an elongate support structure;
a pair of busbars that are mounted on the support structure;
a plurality of printed circuit boards that are mounted on the support structure to be electrically connected to the busbars, each printed circuit board including print engine control circuitry that is configured to control operation of a number of printhead chips;
a plurality of ink distribution structures that are mounted on the support structure
10 and connectable to a supply of ink; and
a plurality of printhead modules that are mounted on respective ink distribution structures, each printhead module having a carrier and a printhead chip positioned on the carrier, each printhead chip having a plurality of nozzle arrangements that are positioned on a wafer substrate, each nozzle arrangement incorporating a micro-electromechanical actuator for ejecting ink from a nozzle chamber, and being mounted on a respective ink distribution assembly, a number of the printhead chips being connected to the print engine control circuitry such that each nozzle arrangement can receive data signals from the print engine control circuitry.
- 20 2. A printing mechanism as claimed in claim 1, in which the support structure includes an elongate chassis that is interposed between a pair of end supports, the chassis being shaped to support the printed circuit boards on one side of the chassis and the ink distribution structures on another side of the chassis, with the busbars interposed between the printed circuit boards and said one side of the chassis.
3. A printing mechanism as claimed in claim 1, in which each printhead module includes a flexible printed circuit board that interconnects the printhead chip to the control circuitry.
- 30 4. A printing mechanism as claimed in claim 1, in which the print engine control circuitry of each printed circuit board is defined by an integrated circuit.

5. A printing mechanism as claimed in claim 2, in which the support structure includes a channel member that is mounted on the chassis, the ink distribution structures being positioned in a channel defined by the channel member.

6. A printing mechanism as claimed in claim 5, in which each ink distribution structure defines a plurality of ink reservoirs that extend through the ink distribution structure such that ink reservoirs extend a length of the channel member when the ink distribution structures are positioned in the channel, the printing mechanism including a connecting assembly that is mounted on an endmost ink distribution structure to permit a plurality of ink conduits to be connected to the endmost ink distribution structure with each conduit being in fluid communication with a respective ink reservoir .

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